CLAIMS

a

Sub B1

1. A method of treating waste photographic effluent containing reduced species by oxidation with hydrogen peroxide, or a compound capable of releasing hydrogen peroxide, in the presence of a catalyst therefor, characterized in that said catalyst is immobilized on a substrate therefor.

2. A method as claimed in claim 1 characterized in that the effluent is photographic effluent.

3. A method as claimed in either of the preceding claims characterized in that the reduced species are sulphur-oxygen species.

4. A method as claimed in claim 3 characterized in that the sulphur-oxygen species are thiosulphate or sulphite.

5. A method of treating waste effluent as claimed in any one of the preceding claims characterized in that the catalyst is selected from a molybdate, tungstate, chromate and vanadate.

Sub B2

6. A method as claimed in claim 5 characterized in that the catalyst is a molybdate.

7. A method as in claim 1 characterized in that the substrate constitutes a porous mass which permits permeation of the waste effluent into its interstices, thereby presenting a large surface area of catalyst to the effluent.

8. A method as in claim 1 characterized in that the substrate is an ion exchange material.

Sub B3

9. A method as in claim 1 8 characterized in that the substrate comprises an anion exchange material.

10. A method as in claim 1 characterized in that the effluent is from a process with a redox-amplifier developer.

11. A method as in claim 1 characterized in that the effluent is from a process wherein the fixer contains an amount of sulpur-oxygen species greater than about 20g of thiosulphate (based on ammonium thiosulphate).

12. A method as in claim 1 characterized in that hydrogen peroxide, or a compound capable of releasing hydrogen peroxide, is combined with a soluble alkali whose congugate acid has a pKa of < 8.5, prior to reaction with the effluent, to reduce the final pH of the effluent to about 5 to 9.

13. A method as in claim 12 characterized in that the alkali is a soluble bicarbonate, alkanoate or dihydrogen phosphate.

14. A method as in claim 13 characterized in that the alkali is potassium bicarbonate.

15. Holding tank apparatus (10) for treating waste effluents, which holding tank apparatus (10) comprises a receptacle (17) containing a catalyst, which catalyst is adapted for catalyzing the oxidation of reduced species in waste effluents by hydrogen peroxide, or a compound capable of releasing hydrogen peroxide, and which catalyst is immobilized on a substrate (16) therefor in the receptacle (17), an inlet (11) for introducing effluent from a development process to the receptacle (17), and an outlet (12) fitted with selectively operable closing means (13).

16. Holding tank apparatus (10) as claimed in claim 15 characterized in that the waste effluent is as claimed in any one of claims 2 to 4, 11 and 12.

17. Conduit apparatus (20) for treating waste effluents, which conduit apparatus (20) comprises a conduit (27) containing a catalyst, which catalyst is adapted for catalyzing the oxidation of reduced species in waste effluents by hydrogen peroxide, or a compound capable of releasing hydrogen peroxide, and which catalyst is immobilized on a substrate (26) therefor, an inlet

(21) for introducing waste effluents to the conduit (27), and an outlet (22); whereby in use, waste effluents are supplied continuously to the conduit (27) at a volume throughput to achieve substantially complete oxidation of the reduced species.

18. Conduit apparatus (20) as claimed in claim 17, characterized in that the substrate (26) is porous and is packed in the conduit (27).

19. Conduit apparatus (20) as claimed in either claim 17 or 18 characterized in that the waste effluent is as claimed in any one of claims 2 to 4, 10 and 11.

20. Apparatus for treating water effluents (40) in a continuous manner as claimed in any one of claims 18 to 20 characterized by including a pump (130) for pumping waste effluent from a holding tank (180), a pump (70) for pumping hydrogen peroxide, or a compound capable of releasing hydrogen peroxide, or its combination with a soluble alkali whose conjugate acid has a pKa of < 8.5, for mixing with the waste effluent prior to passing over the catalyst immobilized on the substrate (140).